



A.D. 1853. N° 1511.

S P E C I F I C A T I O N

OF

ALLAN MACPHERSON.

BY APPOINTMENT TO HER MAJESTY THE QUEEN

DISINFECTING SEWERS OR DRAINS, AND
CONVERTING THE CONTENTS THEREOF TO
USEFUL PURPOSES.

L O N D O N :

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1854.



A.D. 1853 N° 1511.

**Disinfecting Sewers or Drains, and Converting the
Contents thereof to Useful Purposes.**

(This Invention did not proceed to the Great Seal.)

PROVISIONAL SPECIFICATION left by Allan Macpherson at the
Office of the Commissioners of Patents, with his Petition, on the
20th June 1853.

I, ALLAN MACPHERSON, of Brussels, in the Kingdom of Belgium,
5 Merchant, do hereby declare the nature of the said Invention for
“IMPROVEMENTS IN DISINFECTING SEWERS OR OTHER DRAINS, AND IN CON-
VERTING THE CONTENTS THEREOF TO USEFUL PURPOSES,” to be as follows :—

I propose to use peat or peat charcoal mixed with chloride of sodium
(common salt) or alone, where it may be found desirable; but in all
10 cases where manure is of value, and can be disposed with facility, I mix
the peat or peat charcoal with the chloride of sodium, powdered or fine,
to add to the fertilizing properties of sewage to be received in reser-
voirs. I propose, wherever possible, to receive the contents of drains
or sewers into a reservoir or reservoirs which I shall have previously
15 prepared by partly filling it or them with a mixture of peat or peat

Macpherson's Improvements in Disinfecting Sewers or Drains, &c.

charcoal and common salt, or into which I shall provide by any known means for such mixture being poured in, to meet the sewage matter as it may be discharged from the drains or sewers. I need not say anything of the deodorizing and disinfecting properties of peat, charred or otherwise, as they are well known, but by mixing the same with salt 5 and sewage of towns a deodorized manure of a very powerful kind for agricultural purposes will be obtained.

I also purpose to collect or arrest noxious vapours of drains or sewers in their course by (where practicable) excavating chambers of proper form and of convenient height in the main sewers, into which 10 I propose to introduce trays of iron or basket work filled with the above mixture; this will seize the exhalations as they rise to the level of the chamber, and by depriving them of the ammonia therein contained will render them harmless as they escape by the usual gratings. Or, where convenient, I propose to construct chambers above 15 the tunnel sewers, making openings therein at the top and gratings above the chambers; as the noxious exhalations pass along they will be drawn (in consequence of the draft occasioned by the gratings aforesaid) through the chamber so constructed, which being filled with my prepared composition laid on wire or basket-worked flats or trays 20 as aforesaid, will be deprived of their noxious qualities, and escape after the passage through the tray is freed therefrom.

I also propose, where practicable or desirable, to place barges, lighters, or other craft before the mouth of sewers, to conduct the contents thereof into the said craft, such vessels being previously provided 25 with my composition on gratings as aforesaid; otherwise these barges will be closed or close-decked, and furnished with means to permit the aqueous part of the sewage to discharge itself into the river, such aqueous part being deprived of considerable portions of its noxious properties by coming into contact even for a short time with my composi- 30 tion. When the lighter is full of material sewage it may be taken from its position and another lighter substituted in its place, or, where practicable, a permanent dumby or close vessel may be used. It is scarcely necessary to observe that where low lands or large reservoirs

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are appropriated or made for the purpose of receiving the entire sewage of towns my Invention will be found most applicable, as additional purifying and at the same time additional fertilizing may go on (as it were) hand in hand. The substances used by me for my operations are
5 very cheap and quite inexhaustable.

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Printers to the Queen's most Excellent Majesty. 1854.

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